

## CLAIMS

What is claimed is:

1. A method of generating a formula expression for a cell that is at an intersection of a row and a column in a financial statement, comprising:
  - obtaining a row definition for the row, the row definition defining a term of the statement;
  - obtaining a column definition for the column, the column definition specifying a period of time; and
  - interpreting the row definition and the column definition to generate a formula expression for the cell.
2. The method of claim 1, wherein:
  - interpreting definitions to generate a formula is done with reference to the position of the cell with respect to other columns in the statement.
3. The method of claim 1, further comprising:
  - generating the formula expression for the cell on the fly in response to a change in either the row definition or the column definition.
4. The method of claim 3, further comprising:
  - evaluating the formula expression in each cell of the statement having a formula expression and displaying the resulting statement to a user; and
  - obtaining data for the formula expressions from a database.

1 5. The method of claim 4 for generating and evaluating a formula expression for the cell.  
2 further comprising:

3 providing a statement base period, being the smallest time duration represented in  
4 a column of the statement; and

5 providing a database base period, being the smallest time duration represented in  
6 a record of the database, the database base period being no greater than the statement  
7 base period.

1 6. The method of claim 5, wherein:

2 the database base period is automatically detected from column labels read from  
3 the database.

1 7. The method of claim 3, further comprising:

2 displaying the statement to a user;

3 receiving from the user a command to change a current time period style of the  
4 statement to a new time period style, a time period style specifying the period of time  
5 covered by the statement and the duration of a period unit defining the temporal  
6 granularity of the statement; and

7 generating a new formula expression for the cell according to the new time period  
8 style, and displaying the resulting statement to the user.

1 8. The method of claim 3, further comprising:

2 displaying the statement to a user; and

3 receiving from the user a command to use a new database for input data having a  
4 new base period different from a current base period, generating a new formula  
5 expression for the cell reflecting the new base period, and displaying the resulting  
6 statement to the user.

1 9. The method of claim 3, further comprising:

2 providing three kinds of columns, namely base columns, subtotal columns, and  
3 grand total columns, where for a row holding a flow term, a subtotal column has a row  
4 value defined as the sum of base column values, and a grand total column has a row  
5 value defined as the sum of subtotal columns, and for a row holding a stock term, a  
6 subtotal column has a row value defined as a preceding base column value, and a grand  
7 total column has a row value defined as a preceding subtotal column.

1 10. The method of claim 9, further comprising:

2 collapsing the period columns to show the user a view of the statement consisting  
3 of the term column and total columns.

1 11. The method of claim 9, further comprising:

2 receiving from a user a subtotal time period for a subtotal column, comparing the  
3 subtotal time period to the period of time covered by the statement, and extending the  
4 period of time covered by the statement to allow computing the subtotal column.

1 12. The method of claim 9, further comprising:

2 receiving from a user a subtotal time period for a subtotal column, comparing the  
3 beginning of the subtotal time period to the beginning of the period of time covered by  
4 the statement, and leaving a row value in the subtotal column blank if the row has a flow  
5 term.

1 13. The method of claim 9, further comprising:

2 accepting from a user a command to insert a subtotal column in the statement and  
3 generating new formula expressions in cells of the statement reflecting this insertion.

1 14. The method of claim 13, further comprising:

2 accepting from a user a command to insert a grand total column in the statement  
3 and generating new formula expressions in cells of the statement reflecting this insertion.

1 15. A method of populating a financial statement having columns and rows, comprising:

2 identifying an input database having columns as a source of input data for the  
3 statement, the data in the columns corresponding to a database period unit of time;

4 identifying a statement period unit for the base columns of the statement, the  
5 statement period unit being greater than the database period unit;

6 dynamically computing for each base column of the statement a correspondence  
7 to more than one column of the input database; and

8 populating cells of a statement column using data from the corresponding  
9 database columns.

1 16. The method of claim 15, wherein the statement is displayed to a user and the user  
2 can change the statement period unit, further comprising:

3 repopulating the cells in response to a change in the statement period unit.

1 17. The method of claim 15, further comprising:

2 automatically detecting the database base period unit from column labels read  
3 from the database.

1 18. The method of claim 15, wherein the statement is displayed to a user, further  
2 comprising:

3 inserting subtotal columns in the statement in response to a user request;

4 populating the statement including the subtotal columns with cell formulas for  
5 calculating cell values including values for the subtotal columns.

1 19. The method of claim 18, wherein:

2 the cell formula for a cell in a row holding a flow term defines a sum of base  
3 column values and the cell formula for a cell in a row holding a stock term defines a  
4 copy of a preceding base column value.

1 20. The method of claim 18, further comprising:

2 inserting a grand total column in the statement in response to a user request: and  
3 populating cells of the grand total column with cell formulas for calculating cell  
4 values, where for a row holding a flow term, a grand total column has a cell value defined  
5 as the sum of subtotal column values.

1 21. A computer program residing on a computer-readable medium for causing a  
2 processor executing the computer program to generate a formula expression for a cell that  
3 is at an intersection of a row and a column in an electronic financial statement, the  
4 computer program comprising instructions to:

5 obtain a row definition for the row, the row definition defining a term of the  
6 statement;

7 obtain a column definition for the column, the column definition specifying a  
8 period of time; and

9 interpret the row definition and the column definition to generate a formula  
10 expression for the cell.

1 22. A computer program residing on a computer-readable medium for causing a  
2 processor executing the computer program to populate an electronic financial statement  
3 having columns and rows, the computer program comprising instructions to:

4 identify an input database having columns as a source of input data for the  
5 statement, the data in the columns corresponding to a database period unit of time;

6 identify a statement period unit for the base columns of the statement, the  
7 statement period unit being greater than the database period unit;

8                   dynamically compute for each base column of the statement a correspondence to  
9                   more than one column of the input database; and  
10                  populate cells of a statement column using data from the corresponding database  
11                  columns.